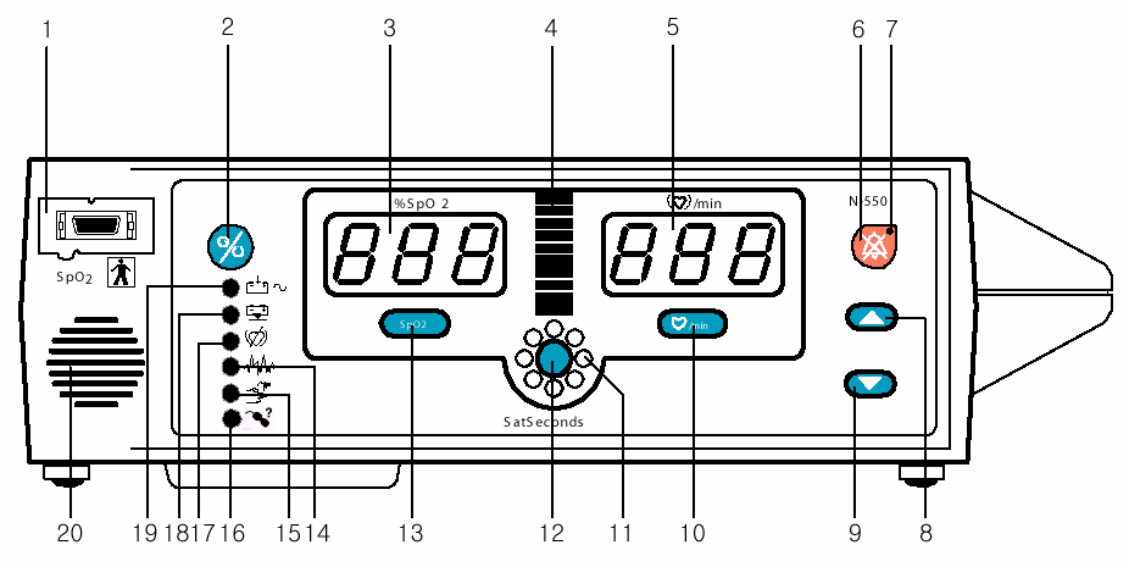
N-550 Operation

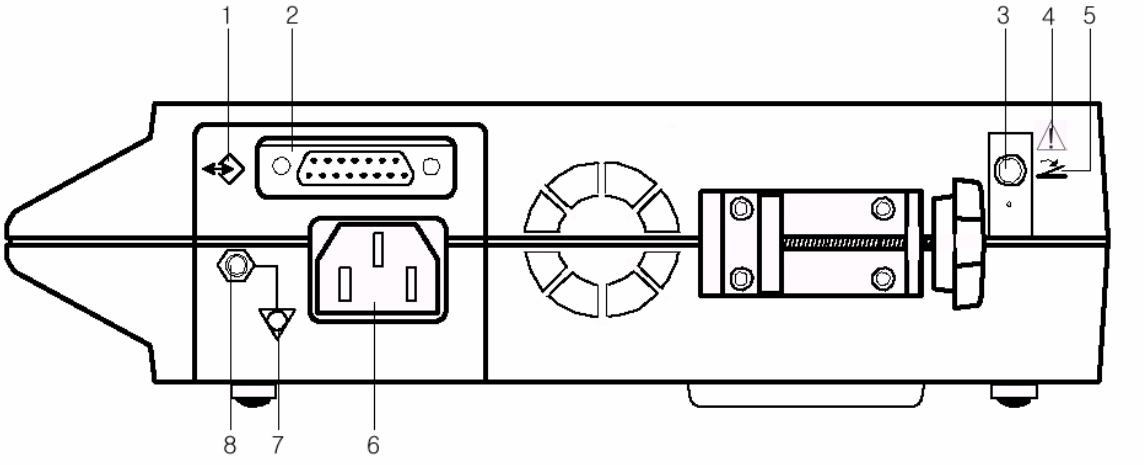
Intended Use and Features for the N-550

The N-550 Pulse Oximeter is indicated for the continuous non-invasive monitoring of functional oxygen saturation of arterial hemoglobin (SpO2) and pulse rate. The N-550 is intended for use with neonatal, pediatric, and adult patients during both no-motion and motion conditions and for patients in hospitals, hospital-type facilities, intra-hospital transport, and home environments. For prescription use only.

Identification, Description for the N-550



1. SpO2 Sensor Port
2. Power On/Off Button
3. %SpO2 Display
4. Pulse Amplitude Indicator
5. Pulse Rate Display
6. Alarm Silence Button
7. Alarm Silence Indicator
8. Adjust Up Button
9 Adjust Down Button
10. Pulse Rate Alarm Limit Button
11. *SatSeconds*™ Display
12. *SatSeconds* Alarm Limit Button
13. SpO2 Alarm Limit Button
14. Motion Indicator
15. Sensor Off Indicator
16. Sensor Message Indicator
17. Pulse Search Indicator
18. Low Battery Indicator
19. AC Power Indicator
20. Speaker



1. Data Interface
3. Foot Switch Connector
5. Foot Switch
7. Equipotential (ground)
2. Data Port Connector
4 Caution - Do not connect while power is on
6.Equipotential Connector
8. AC Power Connector

Summary of Operation

To Set up the N-550	
-	With the monitor on a flat, stable surface, plug AC power cord into a properly grounded AC outlet.
-	Attach a selected sensor to the patient, and then connect the sensor to the end of the DOC-10 cable.
-	Connect the other end of the DOC-10 cable into the N-550 sensor port located on the front of the monitor.
-	Ensure that nothing is placed in front of the monitor's speaker that could interfere with the audible alarm being heard.
To Turn on the N-550	
	Press the Power On/Off button over 1 second. 'n 550'is displayed with Start-up sound, and then the monitor conducts a power-on self-test (POST) and signals successful completion of the test with a 1-second tone.
	The Pulse Search indicator and Sensor Off indicator light, and the monitor displays zeros while it searches for a valid pulse. If no sensor is attached, dashes are displayed and the Pulse Search indicator and Sensor Off indicator is not lit.
-	When a valid pulse is detected, the N-550 begins monitoring.
To adjust Pulse Beep Volume	
	Press either the Adjust Up or Adjust Down buttons
To view the current alarm limits for %SpO2	
	Press the SpO2 Alarm Limit button once. The upper alarm limit is shown in the % SpO2 Display.
	Press the SpO2 Alarm Limit button twice. The lower alarm limit is shown in the % SpO2 Display.
	Press either the Adjust Up or Adjust Down button until the desired limit is shown in the display.
To view the current alarm limits for Pulse Rate	
	Press the Pulse Rate Alarm Limit button once. The upper alarm limit is shown in the Pulse Rate Display.
	Press the Pulse Rate Alarm Limit button twice. The lower alarm limit is shown in the Pulse Rate Display.
	Press either the Adjust Up or Adjust Down button until the desired limit is shown in the display.
To view the current alarm limit for SatSeconds	
	Press the SatSecond Alarm Limit button. The SatSecond alarm limit is shown in the Pulse Rate Display.
	Press either the Adjust Up or Adjust Down button until the desired limit is shown in the display.
To silence the audible alarm	
	Press the Alarm Silence button. The indicator lights to show that the alarm has been silenced.
To adjust the alarm silence duration	
	Press and hold the Alarm Silence button. The current alarm silence duration is shown in the display. Press the Adjust Up or Adjust Down button to change the silence duration to the desired amount of time. To disable Audible Alarms, Set the alarm silence duration to OFF.
The ability to set the alarm silence duration to OFF can be enabled or disabled via Menu 11 (Alarm Silence Behavi or)	
	- Option "0" allows the operator to select Alarm Silence "Off" with Alarm Silence Reminder Tone. - Option "1" allows the operator to select Alarm Silence "Off" with NO Alarm Silence Reminder Tone. - Option "2" does not allow the operator to select Alarm Silence "Off".
To adjust the audible alarm volume	
	Press and hold the Alarm Silence button for more than 3 seconds. The current alarm volume is shown in the display and is sounded on the speaker. Press the Adjust Up of Adjust Down button to adjustthe volume to the desired level.
To Turn off the N-550	
	Press the Power On/Off button over 1 second.

Accessing Menus

: To Access the Menus

: To Select, accept: **Satseconds Alarm Limit Button**

: To Change sub menus: **Adjust Up/Down Button**

Menu Tree

Menu	Sub-Menu	Function	Remark
Operator's Menu			
1	-	Trend Print (Tabular monitor trend only)	Trend data can be viewed (if connected to a PC) or a trend printout can be made.
2	-	Trend Clear	Trend data available through the use of Menu 1 will be deleted.
3	-	Language selection (Not used, English only)	
4	- 24 96 192	Baud rate: 2400 baud rate 9600 baud rate 19200 baud rate	
5	- 1 2	Data Port Protocol: ASCII mode real-time serial output External equipment communications	To change the method of sending data to the data port.
Service Menu			
6	-	Not used	
7	-	Not used	
8	- - 03 04 - 30 14 - 10 45	Time Setting Year Month Day Hour Minute Second	"-" indicates that the value may be set by pressing the Adjust up/down buttons when an item is selected.
9	-	Save current values as Power-on Defaults	To save new values as the current institutional default values.
10	-	Save factory default settings as Power-on Defaults	To reset to factory default values.
11	- 0 1 2	Alarm Silence Behavior Alarm Silence Off with Alarm Silence Reminder Alarm Silence Off without Alarm Silence Reminder Alarm Silence Off Not Allowed	To allow or not to allow the user to select Alarm Silence "Off"
12	- 0 1	Alarm Silence On Off	To set alarm silence condition
13	- 0 1	Display On Off	To enable or disable the display
14	- 1 2 3	Alarm Sound Style selection default (Nellcor alarm sound style) IEC60601-1-8 EN475	To select the alarm sound style

Factory Defaults

Parameter	Range	Factory Default Setting
%SpO2 Upper Alarm Limit	Lower Alarm Limit plus 1 to 100% (Lower<Upper)	100 %
%SpO2 Lower Alarm Limit	20% to Upper Alarm Limit minus 1 (Lower>80%)	85 %
Pulse Rate Upper Alarm Limit	Lower Alarm Limit plus 1 to 250 BPM	170 BPM
Pulse Rate Lower Alarm Limit	30 BPM to Upper Alarm Limit minus 1	40 BPM
SatSeconds	Off, 10, 25, 50, 100	Off
Alarm Silence	On, Off	Off
Alarm Silence Duration	Off, 30, 60, 90, 120 sec	60 sec
Alarm Silence Behavior	Alarm Silence Off with Alarm Silence Reminder Alarm Silence Off without Alarm Silence Reminder Alarm Silence Off Not Allowed	Alarm Silence Off with Alarm Silence Reminder
Alarm Volume	1 to 10	4
Pulse Beep Volume	0 to 10	4
Data Port Baud Rate	2400, 9600, 19200	19200
Data Port Protocol	1, 2	1 (ASCII)
Display	On, Off	On